NWC Essay 91-19

## SPACE STRATEGY:

DEFENSIVE SHIELDS OR DEATH FROM ABOVE?

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## SPACE STRATEGY - DEATH FROM ABOVE?

The United States is committed to the exploration and use of outer space by all nations for peaceful purposes and for the benefit of all mankind. "Peaceful purposes" allow for activities in pursuit of national security goals.

National Space Policy, 2 November 1989

The use of space enhances the Soviet Armed Forces combat effectiveness by a factor of 2.5.

N.I. Ryzhkov, Chairman, USSR Council of Ministers, 1989

But we must insist that defense without an active purpose is self-contradictory both in strategy and in tactics, and in consequence we must repeat that within the limits of his strength a defender must always seek to change over to the attack as soon as he has gained the benefit of the defense.

Carl von Clausewitz, On War

Thus, the proposed arms control approach for strategic defense would do the following: increase defenses to apply pressure on arms control to achieve offensive force reductions, accept compromises that limit SDI deployment, and, <a href="mailto:limit\_weapons">limit\_weapons</a> deployment in space to defensive systems only.

Howard G. DeWolf, SDI and Arms Control

For the last year I have heard time and time again that "the cold war is over". Articles were published by the NDU Press which spoke of "US Strategy After The Cold War", and the Washington Post headlines screamed (before 2 August) of the "Peace Dividend" as a result of the end of the East-West confrontation. Experts in National Security spoke often of the end of the cold war and what the new "multi-polar" world would look like, and Gorbachev won the Nobel Peace Prize. This simple soldier DOES NOT, however, believe that the cold war is over! The peace dividend is a delusion which may prove disastrous for our country in

the long run. I believe, as did Winston Churchill, that the Soviet Union is a "riddle wrapped in a mystery inside an enigma". While I will agree that the current situation is irreversible to the extent that it will never go back to the way it was before glasnost and perestroika, I can never believe that the Soviet government will become a Jeffersonian Democracy without a violent revolution. And what is most frightening is that we have no experience in dealing with a nuclear super-power embroiled in violent civil war. One misstep in the future may prove catastrophic. After all, how does a western democracy reason with a disintegrating country whose doctrine for nuclear war states that:

"Obviously, strikes will be launched against important industrial centers where industry and population are concentrated in high density in limited areas, such as the economic centers of Germany, the United States, and Britain",

and that in a nuclear war,

". . . the capability of the military to conduct planned and organized action will decrease rapidly, and nuclear stockpiles will be exhausted. This does not mean that a nuclear war will be terminated very quickly. Even after the exhaustion of the principal nuclear stockpiles, military actions will carry on for a long time, and the war will assume a special character, unprecedented in history. Following massive nuclear strikes, the war will surely not end, but the opposing sides will continue to launch their strikes at a lower level of force. The forces must be prepared to continue the war, despite the fact that they may have suffered enormous losses. They should continue to advance and prosecute the war".

How can one reason with an unstable group, which holds the largest collection of nuclear weapons in the world, which believes that after an exchange of 30 or 40 thousand nuclear warheads, the world would care who "won" the war!?! How could anyone win such a war?

Deterrence has worked with the Soviet Union for over 45 years because the Soviets have never felt comfortable that they could defeat the United States, either conventionally or unconventionally, and it would certainly appear that the recent demonstration of strength in the Persian Gulf will go a long way toward reinforcing the Soviet concerns. But there is an area in which the Soviets are not behind the United States . . . and that is space. It is clear that the Soviets are serious about their space effort, and it is not clear that the United States has adopted an appropriate military strategy.

It is, I believe, a true statement that the basic goals for the United States have not significantly changed. We still strive for peace, security, and prosperity for the American people, and, as a capitalist society, we believe that the viability of the American economic and political systems are fundamental in achieving that goal. We believe in the right of self-determination and the provision of basic human rights for all people, and are still prepared to fight for them if provoked. We have, of course, developed military objectives which support these political objectives, and they can all be summed up as deterrence, and if deterrence fails, then the ability to fight in the full spectrum of conflict . . . and win!

It is interesting to note that the Soviets do not tie their military objectives to specific ideological factors, but rather to the politics of the state itself:

"Politics is not only the producer of the war but the force that continues the war. Politics determines the major characteristics of the war. It must be noted

that war is the continuation of politics by forceful means; therefore, each war has a direct relationship with the kind of political order which produced it."

The principles of their military strategy conclude that:

"A Socialist government, when dragged into war, will have just aims, i.e., the protection of the Socialist system, which is a progressive socioeconomic order. Any war waged by imperialists against the Socialist system or individual Socialist governments and national liberation and revolutionary movements will have unjust aims".

The strategic aim of the Soviet military is, then, the total destruction of the enemy's armed forces and his military economy, neutralization of his state control system, and seizure of his territory, and the Soviet space doctrine is an integral part of his overall war fighting doctrine. The Soviets do not view space as a separate theater of operation, but rather as an extension of the ground theater . . . as a force multiplier ( 2.5 by some accounts), and their development of an active ASAT system makes it clear that they do not intend to abide by the concept of space neutrality.

Although the United States has done a great deal of R&D on ASAT systems, we do not have an operationally deployed system as the Soviets do. We also do not have a permanently manned space station conducting an estimated 80% of its work in military related fields. Additionally, we do not have the capability to surge and launch a large number of platforms as the Soviets do, in order to replace destroyed satellites or to saturate an area to support a specific conflict.

While it is clear that both the Soviets and the US have "militarized" space with reconnaissance satellites, and the US still holds a technological advantage in quality of these plat-

forms, there can be legitimate arguments as to who holds the advantage . . . quality versus quantity. The real test will come, however, when actual weapons begin to appear in space, if indeed, they are not already there. According to the Voroshilov Lectures the instructor for strategy stated (15 years ago) that although it was expensive to place nuclear rockets in space, it would be possible and there was no safer place for them. He also spoke of "Command posts equipped with various communications means . . " which would provide more secure and effective control.

But, perhaps, more significant than the placement of nuclear warheads in space is the development and placement of the next generation of weapons of mass destruction; weapons which utilize beams, infrasonic, radiological, and even geophysical influences. A technological breakthrough in any one of these areas by the Soviets, and the placement of the weapons of mass destruction in space quickly and in large quantities, could so upset the balance of power as to render all other military forces obsolete. And while the probability of this occurring is not extraordinarily high, the consequences of our failure and the Soviet's success in this area are so profound that they demand we take all necessary action to reduce this vulnerability. If the Soviets achieve a breakthrough in any of these, or other as yet unnamed, technological fields, the result could be as devastating as if the Germans had developed the atom bomb in, say, 1942.

While other countries have made some strides in the development of technology which is applicable to various weapon systems, as well as portions of the technology required for space exploitation, only the United States and the Soviet Union have the technology and the resources to move forward with significant space programs . . . and at the present it appears that the Soviets are more committed to winning the "space race" than are we, even though the 1989 Space Policy statement issued by the White House is a step in the right direction. seems to move the U.S. away from the "kinder, gentler" use of space, and seems to recognize the potential need to develop space based weapons for national security purposes. The policy recognizes the inherent right to use space in self-defense, AND, "its defense commitments to its allies." It rejects any limitation on the fundamental right of sovereign nations to acquire data from space, and it says that any attempt to interfere with our space systems will be "viewed as an infringement on sovereign rights". But most significantly it tasks DOD to "study concepts and technologies which would support future contingency launch capabili-This falls far short of tasking DOD to develop and deploy operational systems which would allow us to provide a deterrent level of space capability.

It is, I believe, extremely important for the US to begin immediately to develop the booster/shuttle <u>capability</u> to achieve a surge capacity for deploying space systems which matches that of the Soviets. We need rockets sitting in warehouses which can be fitted with standardized packages, much as we develop hard points on air planes and then develop multiple munitions to fit on these hard points. We then need to increase our launch capacity, that is, our capability to launch multiple packages in a

short period of time. This will require not only more launch pads, but also a quicker "reload" capability at existing pads.

Simultaneously with the launcher improvement program, we must also initiate two additional programs. We must begin a space weapon development program aimed at the full spectrum of possible weapons, and we must move forward with the development of a manned space station capable of conducting operational testing of the various systems as they progress through R&D.

The need to proceed rapidly with this program is well made in the USSPACECOM Pam 2-1 when it states that it is:

"Space operations today are, for the most part, activities dedicated to providing communications, surveillance, and navigation support to terrestrial forces. It is accurate to say "for the most part," because one nation, the Soviet union, has both the doctrine and the weapons which allow it to conduct offensive military operations against spacecraft.

And while the USSPACECOM Pam refers to the many combat tested principles of the masters, such as Sun Tzu, Clausewitz, Hart, et al, it does not move much beyond the theoretical. The danger in staying at the theoretical level, of course, is that we may not have time to apply our technological prowess, and crank up the industrial might of the country, and play catch-up before the next confrontation. One could argue that even though we have had some rather close calls in the past, we have always been able to apply our Yankee ingenuity and prevail. That argument is dangerous, however, because in the type of war we may be facing with the Soviet Union, if we are wrong, we will only be wrong once. There will be no second chance! In the history of warfare there is a single phenomenon which we seem to have forgotten; that is, that every weapon ever created has, at some point, been rendered

obsolete by technological advances, and there is no reason to believe that the current family of ground based nuclear, biological, and chemical weapons will not also meet that fate. Ιf history has taught us nothing else, it should have taught us that the victor is usually the one with the technological edge, and the force structure to adequately apply the technology. it with the long bow, the machine-gun, the atom bomb, and, most recently, the F-117, PGM, M1A1, M2, AH-64, etc. The question we must now answer is whether we have reached a point of diminishing returns on ground based and air breathing systems. certain that additional improvements can be made in these systems, as we are still making minor improvements on the rifle, but can we improve these current systems enough to make up for the lack of advancement in space based weapon systems? Without getting into an analysis of "black" programs - ground, air, or space - I think the answer is a resounding "we don't know"! And we don't know because we have not made the commitment to development of space based weapons.

When we analyze the potential results of pressing forward with a space based weapon system, it appears that the benefits will far outweigh the costs, although the costs will not be inconsequential. We still have the technological edge over the Soviets, especially in the fields of high speed computers, micro processors, and the capability for precision engineering and tooling. As a result, given the will and commitment of the government to proceed with the program it is probable that we could quickly catch and surpass the Soviets, much as we did in the

sixties when we realized we were behind in the space program and committed ourselves to putting a man on the moon.

The Soviets are not unaware of this capability, however. Nor are they unsophisticated in their approach to solving the problem. They have committed tremendous national resources to get where they are today . . which is substantially ahead of the U.S., but not so far ahead as to have an overwhelming superiority. They are well aware that if we commit to the project, they will again be faced with the economic devastation of another arms race. . . which they are likely to lose for all the reasons they have lost every other arms race. The Soviets have, however, achieved a substantial advantage by negotiating treaties which we follow and they do not!

We signed an ABM treaty in the early 70's which we followed and they did not. When we started talking about SDI in the early 80's, they wanted more treaties, and finally agreed to dismantle one of their radars (which was already in violation of the original ABM treaty). They have been in violation of the treaty from the beginning, as evidenced by their comments from as far back as 1975:

"An early space detection observation system is capable of detecting the launch of enemy intercontinental ballistic rockets 20 to 25 minutes before they reach their targets. In this case, when air defense means are kept in a constant high level of combat readiness, the repulsion of the enemy attack can be organized."

There is another cost, in addition to the monetary cost, which is potentially even greater; that is the diplomatic cost . . . the vision of the US denouncing a treaty and launching another arms race which puts the rest of the world at greater

risk. This would clearly be a propaganda opportunity for the Soviet Union, but one which could be countered by a determined and carefully planned diplomatic campaign, centered, perhaps, around the theme of the US continuing to be the "policeman" of the world, looking out for the poor, down-trodden third world countries. Our allies would clearly benefit, and our enemies would clearly be at risk if they violated the rules of international order and discipline.

In summary, the United States can, and should, adopt a military strategy which recognizes the necessity of establishing control/dominance of space-based military systems which run the gamut of combat, combat support, and combat service-support. resist this strategy, for whatever reason, places the United States at risk . . . a risk which is growing each day as the Soviets continue to conduct experiments in their manned space station and as western technology continues to flow to their scientists. And with the period of "glasnost" potentially drawing to a close, (either through civil war or military suppression a la Tienamen Square), we can not afford to trust the Soviets when they say they have no "intent" to attack us. While the probability may be low, the cost of a mistake would terminal. We could spend the rest of our lives in a "Gulag" debating the cost of other options . . . and wondering why we chose the wrong one! Or, perhaps, wandering in a nuclear wilderness watching the northern lights and chasing three headed rabbits for food. Can we afford not to buy life insurance?